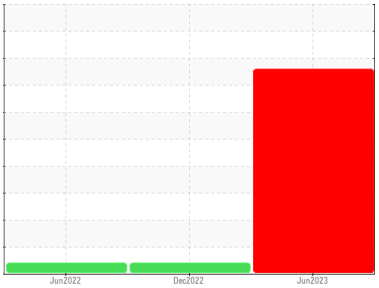
PROBLEM SUMMARY

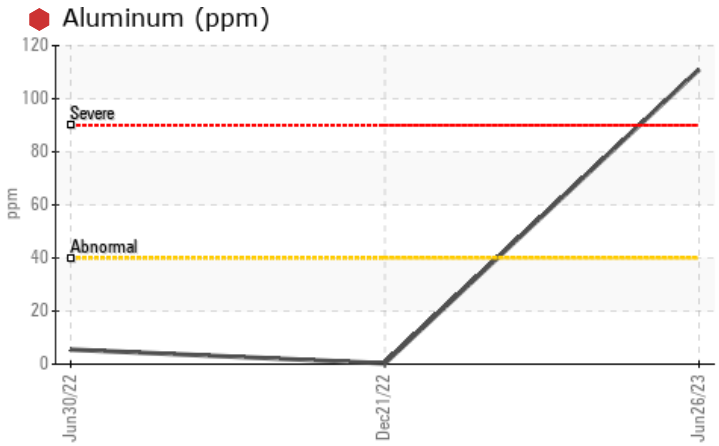
Machine Id
323004-846
Component
Gasoline Engine
Fluid
NOT GIVEN (--- GAL)

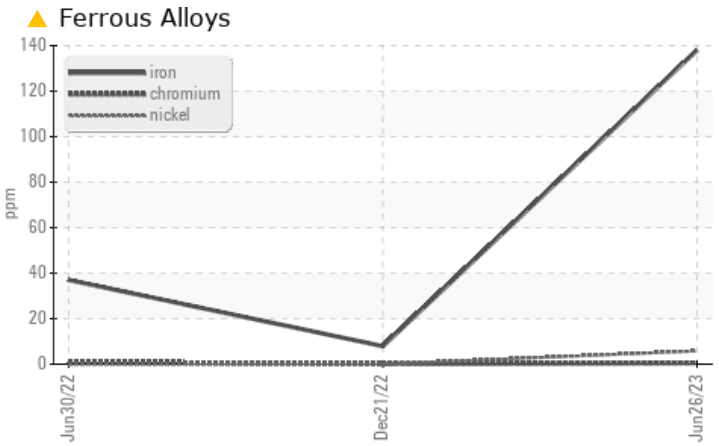
Sample Rating Trend



WEAR

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ATTENTION	ATTENTION
Iron	ppm	ASTM D5185m	>150	▲ **138**	8	37
Nickel	ppm	ASTM D5185m	>5	▲ **6**	0	0
Aluminum	ppm	ASTM D5185m	>40	⬢ **111**	<1	6

Customer Id: GFL624
Sample No.: GFL0064471
Lab Number: 05888204
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.

HISTORICAL DIAGNOSIS

21 Dec 2022 Diag: Jonathan Hester

VISCOSITY

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

30 Jun 2022 Diag: Don Baldridge

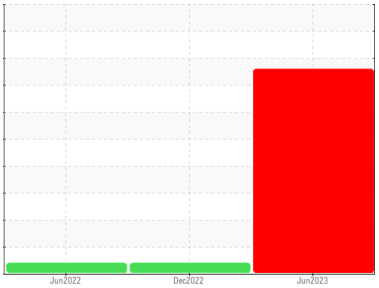
VISCOSITY

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
323004-846
Component
Gasoline Engine
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear
Piston, ring and cylinder wear is indicated. Valve wear is indicated.

Contamination
Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0064471**	GFL0064343	GFL0049492
Sample Date		Client Info		**26 Jun 2023**	21 Dec 2022	30 Jun 2022
Machine Age	hrs	Client Info		**12057**	157175	149605
Oil Age	hrs	Client Info		**502**	0	0
Oil Changed		Client Info		**N/A**	Not Changd	Changed
Sample Status				**SEVERE**	ATTENTION	ATTENTION

CONTAMINATION		method	limit/base	current	history 1	history 2
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>150	▲ **138**	8	37
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	1
Nickel	ppm	ASTM D5185m	>5	▲ **6**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>40	⬢ **111**	<1	6
Lead	ppm	ASTM D5185m	>50	**<1**	0	<1
Copper	ppm	ASTM D5185m	>155	**55**	<1	1
Tin	ppm	ASTM D5185m	>10	**4**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		**47**	88	159
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**13**	74	105
Manganese	ppm	ASTM D5185m		**61**	<1	2
Magnesium	ppm	ASTM D5185m		**3**	461	624
Calcium	ppm	ASTM D5185m		**108**	961	1381
Phosphorus	ppm	ASTM D5185m		**169**	674	635
Zinc	ppm	ASTM D5185m		**15**	754	766
Sulfur	ppm	ASTM D5185m		**1199**	3205	2997

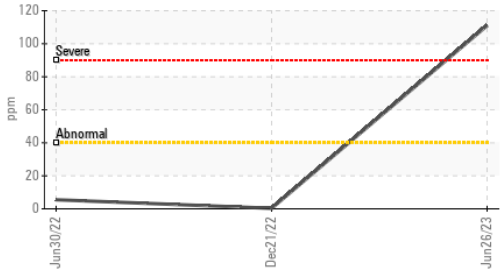
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>30	**16**	8	9
Sodium	ppm	ASTM D5185m	>400	**7**	<1	4
Potassium	ppm	ASTM D5185m	>20	**4**	1	0
Fuel	%	ASTM D3524	>4.0	**0.0**	1.5	<1.0

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844		**1.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**10.7**	9.1	16.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.5**	18.2	29.9

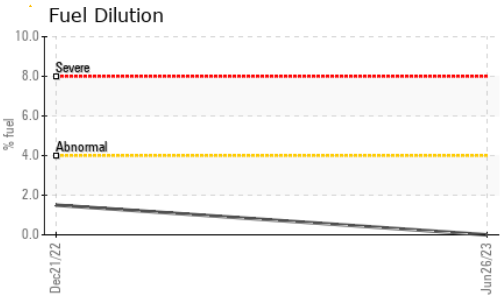
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.8**	10.8	27.5
Base Number (BN)	mg KOH/g	ASTM D2896		**5.8**	5.1	8.1

OIL ANALYSIS REPORT

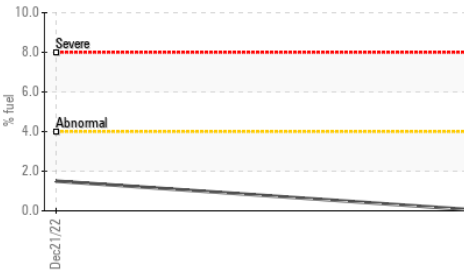
Aluminum (ppm)



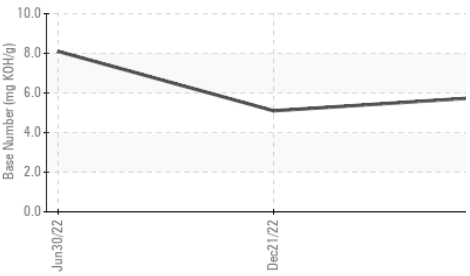
Fuel Dilution



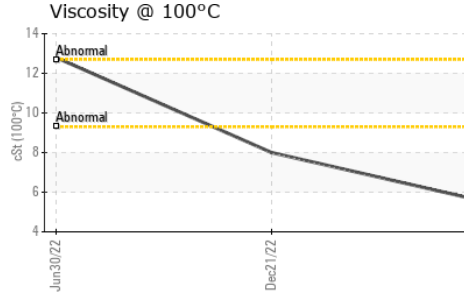
Fuel Dilution



Base Number



Viscosity @ 100°C

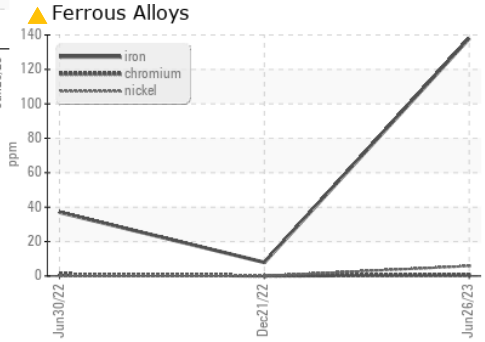


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

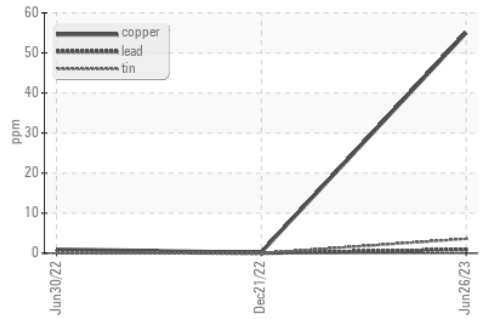
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445		**5.5**	▲ 8	▲ 12.8

GRAPHS

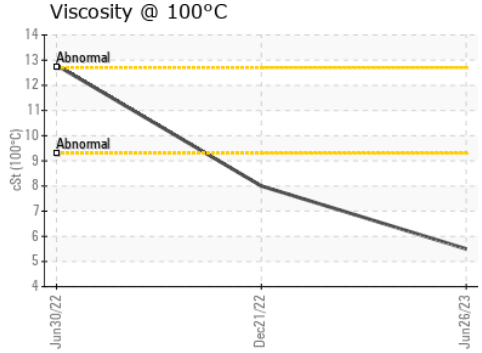
▲ Ferrous Alloys



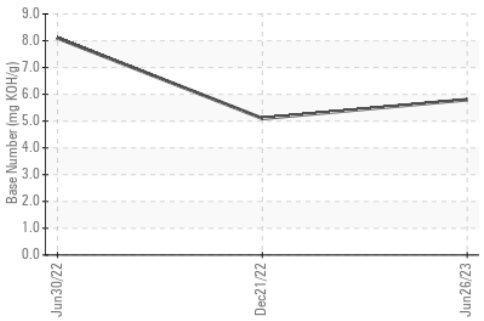
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0064471 **Received** : 30 Jun 2023
Lab Number : 05888204 **Diagnosed** : 06 Jul 2023
Unique Number : 10538687 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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